XVII.—On the Nidification of Haleyon pileatus and Turnix blanfordi in Hong Kong. By Staff-Surgeon K. H. Jones, R.N.

BOTH of these species are among the many concerning the breeding-habits of which little or nothing appears to be on record.

Haleyon pileatus is exceedingly common in the island of Hong Kong, and the observations which follow concerning its nidification have reference to that locality. This bird spends the winter months on the sea-coast and on the small estuarine mud-flats and mangrove-swamps which abound in certain parts of the Kwang Tung littoral. In the third week of April, however, birds, already paired, suddenly make their appearance in the neighbourhood of the places in which they intend to nest. These places have been far from the sea-coast, and sometimes at a considerable distance from it, in all cases which have come under my observation.

The site of the nest in Hong Kong is almost always some perpendicular face of disintegrated granite, such as is found in many of the water-worn nullahs plentifully scattered over the lower ranges of the hills, or a locality where a small landslip has taken place and left bare a perpendicular cliff, perhaps many feet high. But occasionally an artificial cutting through the disintegrated granite along the course of a road is made use of, in the less frequented parts of the Colony. The site is often one which has been in use for many years, to judge by the number of holes to be seen, and in certain cases the same burrow is occupied for two or more succeeding seasons.

The nesting-hole is rarely more than two feet in length, never more than three, and at the inner end an excavation of some fifteen inches in diameter is made to receive the eggs. The birds not infrequently make several attempts before they are able to bore a hole of the requisite depth, the hardness in the disintegrated granite or embedded pieces of rock

preventing further progress, after a few inches or a foot has been drilled out. It follows, therefore, that perhaps not more than one hole in five penetrates the complete distance in a Kingfisher's bank, while a dozen openings may be seen on its face. A distance of ten inches has been measured, which was excavated, between 11 A.M. and 7 P.M., by a pair of H. pileatus.

The eggs, as in all other species of the genus, are laid on the bare earth of the burrow, with which in Hong Kong they are invariably stained, and round them an ever-increasing amount of castings is piled up. In the case of *H. pileatus* this consists largely of the elytra and other chitinous parts of sundry Colcoptera, but also, in general, of fragments of the shells and other cretaceous parts of crabs and various marine crustacea. The crabs are often carried more than a mile from the sea to the nest.

It is of interest to note that although the shells of crabs are often found in the nesting-holes of *H. smyrnensis*, which is also a common breeding-bird in Hong Kong, the bones of small reptiles almost invariably occur among the castings of that species, but are never found amongst those of *H. pileatus*.

The eggs, it need scarcely be said, are white and glossy, like those of all members of the family. The earliest date on which eggs have been taken was May 25th, when the clutch was fairly hard-set, so that they must have been laid a week at least. The latest date on which fresh eggs have been obtained was June 9th, so that from about the middle of May to the middle of June is the laying-season at Hong Kong.

The eggs are four or five in number, usually five, and are rounded like those of all Kingfishers; they are often less so than those of *Halcyon smyrnensis* and are also, as a rule, a little larger.

After the eggs are laid the male flying backwards and forwards with food is very noisy, uttering continuously his ringing laughing cry, but when once the eggs have been hatched the birds are extremely silent on their journeys to and fro.

The period of incubation is probably about three weeks, and unless the birds are disturbed only one brood is raised in the year.

## TURNIX BLANFORDI.

In 'The Ibis' for January, 1907 (p. 17), Mr. J. D. D. La Touche described eggs which he believed to be those of this bird, taken at Chin Kiang, but he did not succeed in authenticating them.

Turnix blanfordi is a common summer-visitor to the Shantung Promontory, and the natives of that part of China are very well acquainted both with the bird and its nests and eggs. The Chinese call it Hwang Woā (the Yellow Quail). The birds arrive in April and May and depart for the south at the end of October.

The nest is almost always placed in a cornfield, and is a slight affair of straw and grass, resembling that of a Land-Rail on a small scale,

The eggs are invariably four, rather rounded in shape and with a somewhat smooth and glossy surface. The colour is dirty white, very thickly marked with small spots of various shades of green, which are peppered over the whole surface. A few spots of a bluish-black colour, also small, occur on all specimens, and may perhaps tend to form an imperfect zone in certain cases.

I have examined thirty-three eggs of this bird, all of which were obtained in the Shantung Promontory by a European resident. The earliest date on which they were found was May 15th, and the latest July 7th, but the great majority of clutches were laid in June. Always shy, the bird is more than usually so in the breeding-season, and it was not without some difficulty that a specimen was shot from the nest, thereby putting the identity of the eggs beyond dispute.